A2

1. 4. (Amended) A method according to claim 18 wherein said search is conducted by ranking elements of said target data set according to conceptual relevance.

A3

7. (Amended) A method according to claim 1 further comprising determining new relationships between concepts in said lexicon by determining said semantic distance between concepts, defining a radius of semantic distance about a given concept and inferring a relationship between said concepts, excluding concepts falling in distances beyond said radius.

A4

14. (Amended) A method according to claim 18 wherein said concepts may be marked as at least one of a geographical location, offensive, unique instance, and timely, and where such markings can be used to filter elements from the target data set so that target data elements with said markings can be prevented from being presented as search results.

SUB B1

A5

18. (Amended) A method of searching a data set comprising:

organizing concepts according to their meaning into a lexicon, said lexicon defining elements of a semantic space;

providing a first meaning differentiator in response to an input query, wherein said first meaning differentiator is a set of concepts from said lexicon that represent a first location of said query in the semantic space;

providing a second meaning differentiator for each element of a target data set, wherein said second meaning differentiator is a set of concepts from said lexicon that represent a second location of said target data element in the semantic space;

determining a semantic distance from the first meaning differentiator to the second meaning differentiator, which represents the closeness in meaning between said first meaning differentiator and said second meaning differentiator; and

presenting results of a search conducted on the target data set for target data elements close in meaning to an input query, wherein the closeness in meaning is determined by the

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A5 semantic distance between the first meaning differentiator for said input query and the second meaning differentiator for each target data element.

A6 22. (Amended) A method according to claim 18 further comprising:

enabling a user to select at least one meaning from the set of possible meanings for the input query to provide the correct interpretation of the input query for use as input to the search.

23. (Amended) A method according to claim 18 wherein said target data set includes documents.

Please add new claims 25-37 as follows:

25. (Added) A method according to claim 18 wherein the target data set includes subjects in a directory.

26. (Added) A method according to claim 18 wherein the input query may be a text string consisting of words.

A7 27. (Added) A method according to claim 26 wherein the meaning differentiator is determined in an interpretation phase by mapping each word in an input string to probable desired meanings.

28. (Added) A method according to claim 23 wherein the meaning differentiators for the documents are determined in an interpretation phase by mapping each word in the document to probable desired meanings.

29. (Added) A method according to claim 27 wherein said interpretation phase uses the relationships between concepts defined by the lexicon to increase the likelihood of meanings of each word which have relationships to meanings of other words in the input.

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30. (Added) A method according to claim 28 wherein the interpretation phase uses the relationships between concepts defined by the lexicon to increase the likelihood of meanings of each word which have relationships to meanings of other words in the document.

31. (Added) A method according to claim 18 wherein the input query may be a set of predetermined concepts.

32. (Added) A method according to claim 18 wherein the target data element may be a set of predetermined concepts.

33. (Added) A method according to claim 18 wherein the concepts are given a commonness value; and wherein the search is conducted to improve the ranking of elements of said target data set according to commonness of the concepts.

34. (Added) A method according to claim 18 wherein the meaning differentiator is an intersection or a union of concepts from the lexicon.

35. (Added) A method according to claim 18 wherein the target data elements are pre-indexed according to the concepts in their meaning differentiators to improve the speed of the search.

36. (Added) An information handling system comprising:

means for organizing concepts according to their meaning into a lexicon that defines elements of a semantic space;

means for providing a first meaning differentiator in response to an input query, wherein the first meaning differentiator is a set of concepts from the lexicon representing a first location in the semantic space;

means for providing a second meaning differentiator for each element of a target data set, wherein the second meaning differentiator is a set of concepts from the lexicon representing a second location in the semantic space; and

means for determining a semantic distance from the first location in the semantic space to the second location in the semantic space, wherein the semantic distance represents closeness in meaning between the first location in the semantic space and the second location in the semantic space, wherein search results are presented for target data elements close in meaning to the input query and the closeness in meaning is determined by the semantic distance between the first meaning differentiator for said input query and the second meaning differentiator for each target data element.

37. (Added) A method according to claim 18 wherein a user can initiate a secondary search for documents which are close in meaning to at least one of the search results.

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